

SHARP SERVICE MANUAL

QT-60XR
QT-60XB

ATSM782110RCS



Photo: QT-60XR

QT-60XR
QT-60XB

In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

SPECIFICATIONS

GENERAL DESCRIPTION

Power source:	AC 110V ~ 127V/220V ~ 240V, with AC adaptor DC 9V (UM/SUM-3, R6, HP-7 or AA-type x 6)
Speaker:	8 cm (3-1/8"), permanent dynamic speaker
Output power:	PMPO; 3.5W (AC operation) MPO; 2.6W (AC operation) RMS; 1.5W (DC operation, 10% distortion)
Semiconductors:	3 ICs, 2 Transistors 3 Diodes, 1 LED
Dimensions:	Width; 245 mm (9-5/8") Depth; 53 mm (2-1/8") Height; 104 mm (4-1/8")
Weight:	890g (2.0 lbs) without batteries

TAPE RECORDER SECTION

Tape:	Compact cassette tape
Frequency response:	100 — 8,000 Hz
Signal/noise ratio:	38 dB
Input level and impedance:	External mic; 0.3 mV, 600 ohms
Output impedance:	Earphone; 6 — 32 ohms

RADIO SECTION

Frequency range:	AM; 525 ~ 1605 kHz FM; 87.6 ~ 108 MHz
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Specifications for this model are subject to change without prior notice.

SHARP CORPORATION OSAKA, JAPAN

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT,
PLEASE REFER TO THE OPERATION MANUAL.

NAMES OF PARTS

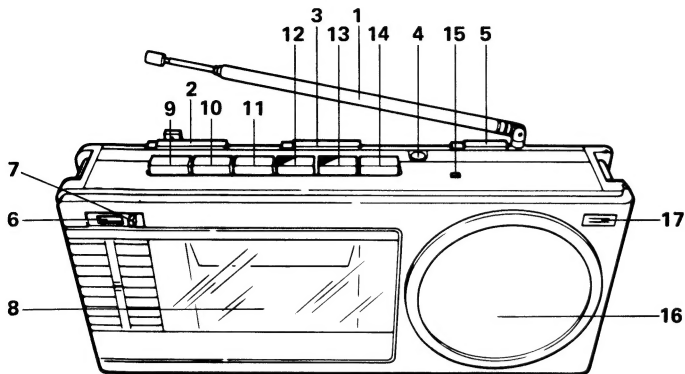


Figure 2-1

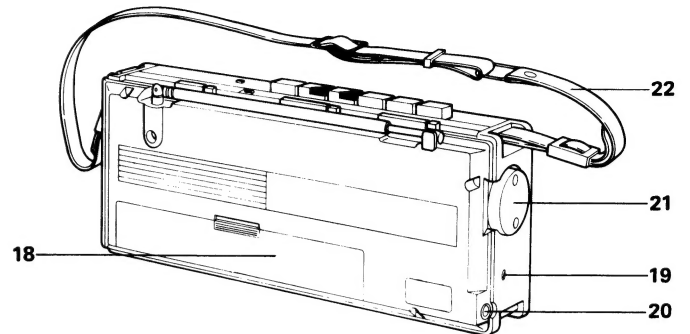


Figure 2-2

1. Rod Antenna
2. Tone Control
3. Volume Control
4. External Microphone Jack
5. Function Selector
6. Digital Tape Counter
7. Tape Counter Reset Button
8. Cassette Compartment
9. Pause Button
10. Fast Forward/Cue Button
11. Rewind/Review Button

12. Play Button
13. Record Button
14. Stop/Eject Button
15. Power Indicator
16. Speaker
17. Built-in Microphone
18. Battery Compartment
19. Earphone Jack
20. External DC Power Supply Jack
21. Tuning Control
22. Carrying Belt

DISASSEMBLY

Caution:

Prior to the disassembly, be sure to remove the AC adaptor, battery, cassette tape, plug from the unit.

1. REMOVAL OF FRONT AND REAR CABINET

(See Figure 2-3)

- 1) Remove the tuning control knob.
- 2) Remove five screws from the cabinet (two of them are in the battery case.) and take the rear cabinet off.
- 3) Remove the lead wires at speaker and take out the front cabinet.

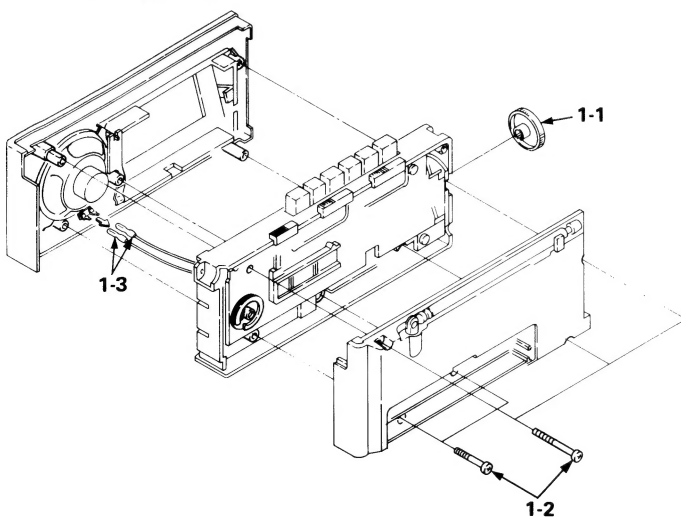


Figure 2-3

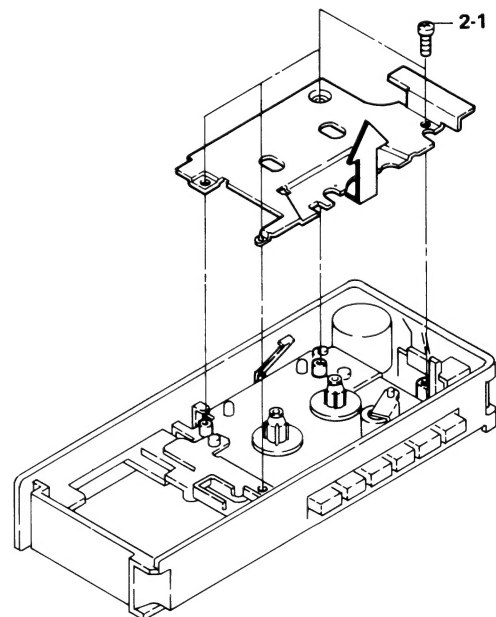


Figure 2-4

2. REMOVAL OF MECHANISM (See Figures 2-4 and 3-1)

- 1) Remove four screws from the mechanism decoration plate and take out the mechanism decoration plate.
- 2) Remove three screws from the mechanism and draw out the mechanism.
- 3) Remove two sockets connected with main P.W.B. and connector P.W.B.

When removing the mechanism, take care not as to damage the pointer.

3. TURNING OVER OF MAIN P.W.BOARD

(See Figure 3-2)

- 1) Remove a screw from the connector P.W.B.
- 2) Remove two screws from the main P.W.B. and take out the microphone Jack and the earphone Jack from the operation cabinet, and the main P.W.B. can be turned over.

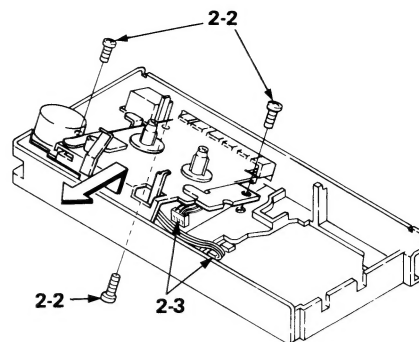


Figure 3-1

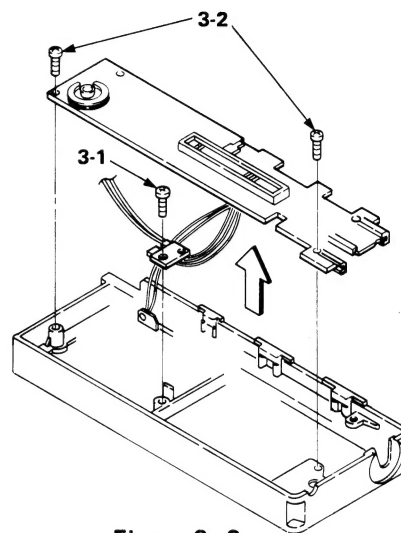


Figure 3-2

DIAL CORD STRINGING

1. Turn the drum fully counterclockwise and stretch its cord over the parts in the numerical order — as shown in Figure 3-4.
2. Turn the tuning control shaft fully clockwise, and fix it with the pointer aligned with about 1.5 mm distance from the bottom of the pointer rod. Furthermore, after fitting the front cabinet, make sure that the pointer is situated at FM: 88 MHz (See Figure 3-3.)

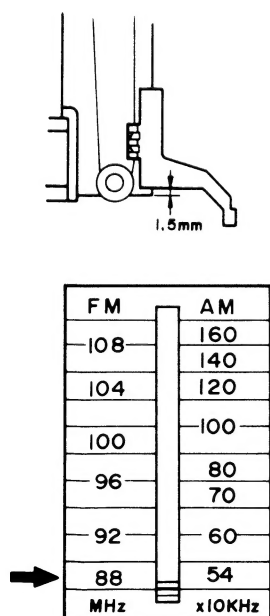


Figure 3-3

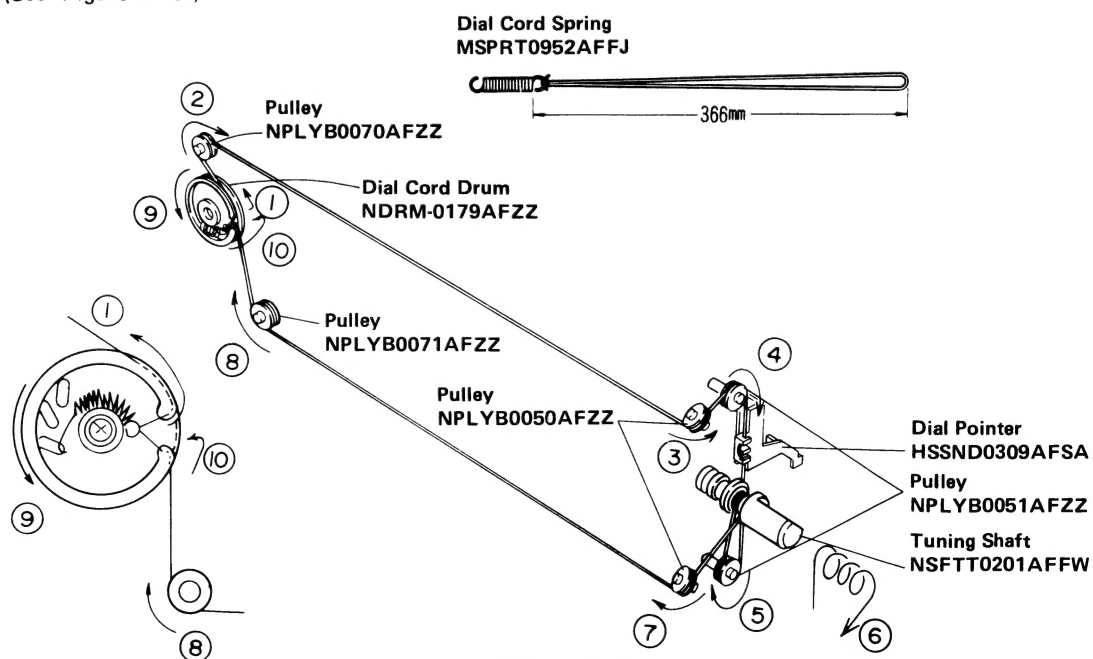


Figure 3-4

MECHANICAL ADJUSTMENT

PINCH ROLLER PRESSURE CHECK

- 1) Place the unit in play mode.
- 2) Push the pinch roller, at the point (A) shown in Figure 4-1, by using a tension gauge (500 gr.) so that it will come off the capstan. Then, slowly release the tension until the pinch roller hits the capstan again (i.e., the pinch roller is about to rotate again). Check, then, the tension gauge is reading 300 gr. to 400 gr.
- 3) If the reading is outside the range of 300 gr. to 400 gr. bend the pinch roller spring or replace.

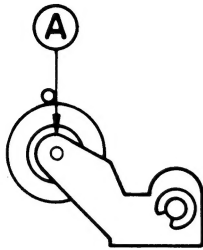


Figure 4-1

TORQUE CHECK AT PLAY, FAST FORWARD AND REWIND MODES

Put a torque meter cassette in the cassette compartment of the unit, and see that the measured torque in each mode is normal as follows:

Mode	Torque meter cassette	Measured torque
Playback	TW-2111	35 ~ 60 gram. cm
Fast forward	TW-2231	85 ~ 120 gram. cm
Rewind	TW-2231	85 ~ 120 gram. cm

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

- 1) Make connection of instruments as shown in Figure 4-2.
- 2) Set the function selector switch at "tape" position.
- 3) Put a test tape (TEAC, MTT-113, 6.3 kHz 80 nWb/m, -10 dB prerecorded) into the unit and play it.
- 4) Adjust the head azimuth adjusting screw so that the electronic voltmeter reading is maximal.

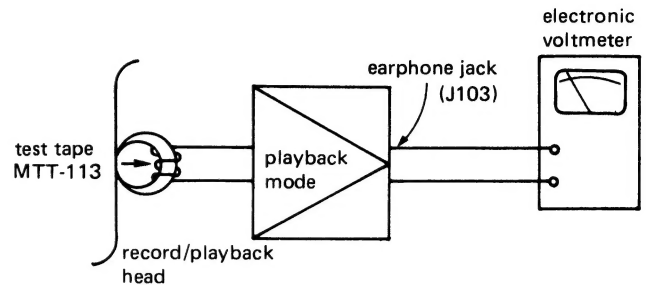


Figure 4-2

TAPE SPEED ADJUSTMENT

- 1) Connect a wow/flutter meter, across a 100 kohm resistor, to the earphone jack.
- 2) Play a test tape (TEAC, MTT-111, 3 kHz prerecorded).
- 3) Adjust the semi-variable resistor on the motor P.W.B. so that the output frequency is 3045 ~ 3060 Hz.

ELECTRICAL ADJUSTMENT

PLAYBACK AMPLIFIER SENSITIVITY CHECK

- 1) Make a connection of instruments as shown in Figure 4-3.
- 2) Set the function selector switch at "tape", the volume control knob at "max", and the tone control knob at "high" position.
- 3) Playback a test tape (TEAC, MTT-118, 1 kHz, 80 nWb/m, -10 dB prerecorded).
- 4) See that the electronic voltmeter is reading about 2V.

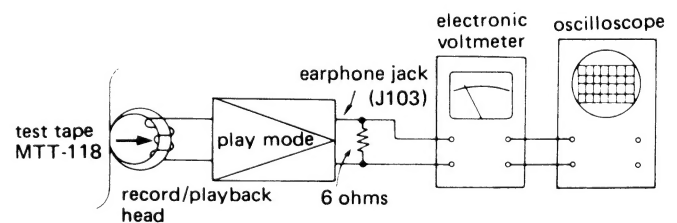


Figure 4-3

GENERAL ALIGNMENT INSTRUCTION

Should it become necessary at any time to check the alignment of this receiver, proceed as follows;

1. Set the volume control (VR101) to maximum.

2. Attenuate the signals from the generator enough to swing the most sensitive range of the output meter.
3. Use a non-metallic alignment tool.

4. Repeat adjustments to insure good results.

AM IF/RF ALIGNMENT

- Set the Function Selector Switch (SW102) to "AM" position.
- Set the signal generator to produce a signal of 400Hz, 30%, AM modulated.
- For adjustments in steps 4, see **Note A**.

STEP	BAND	TEST STAGE	FRE-QUEN-CY	DIAL SETT-ING	ADJUST-MENT	REMARKS
IF (As shown in Figure 5-1 make connection of instruments.)						
1	AM	IF	455 kHz	High end of dial	T3	Adjust for best "IF" curve
RF (As shown in Figure 5-2, make connection of instruments.)						
2	AM	Band cover-age	510 kHz	Low end of dial	L5	Adjust for maximum output
3	AM		1650 kHz	High end of dial	TC3	
4	AM	Track-ing	600 kHz	600 kHz	L4	
5	AM		1400 kHz	1400 kHz	TC4	
6	Repeat steps 2,3,4 and 5 until no further improvement can be made.					

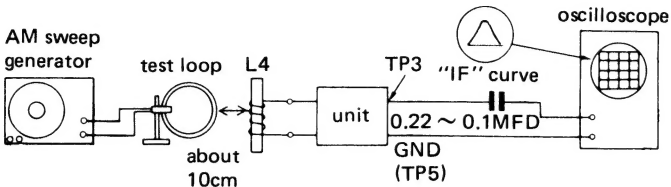


Figure 5-1 AM IF Adjustment

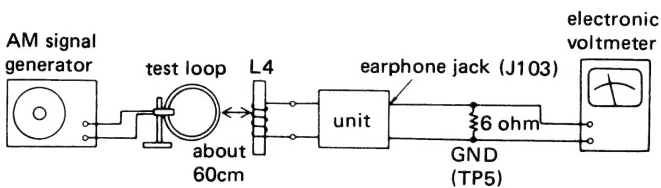


Figure 5-2 AM RF Adjustment

Note A Check the alignment of the receiver antenna coil by bringing a piece of ferrite (such as a coil slug) near the antenna loop stick, then a piece of brass. If ferrite increases output, loop requires more inductance. If brass increases output, loop requires less inductance. Change loop inductance by sliding the bobbin toward the center of ferrite core to increase inductance, or away to decrease inductance.

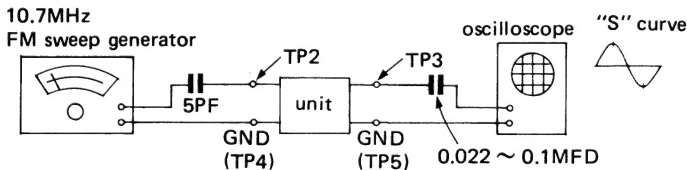


Figure 5-3 FM IF Adjustment

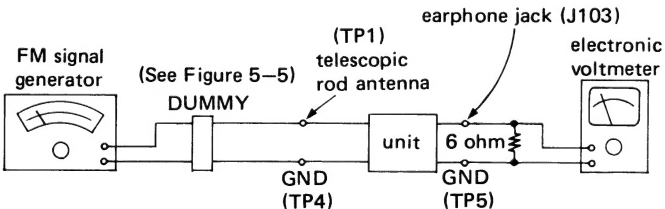


Figure 5-4 FM RF Adjustment

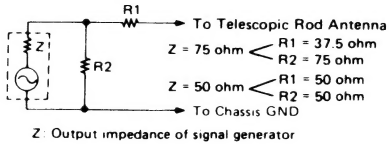


Figure 5-5 FM DUMMY

Note B

When other ceramic filters than the one (red) having the central frequency of 10.7 MHz are used, note that a marker (10.7 MHz) of FM sweep generator, if used, will be deviated—therefore, adjust the generator by putting off the marker.

Central frequency (fo)	Color	Frequency
	Black	10.64 MHz ± 30 kHz
	Blue	10.67 MHz ± 30 kHz
	Red	10.70 MHz ± 30 kHz
	Orange	10.73 MHz ± 30 kHz
	White	10.76 MHz ± 30 kHz

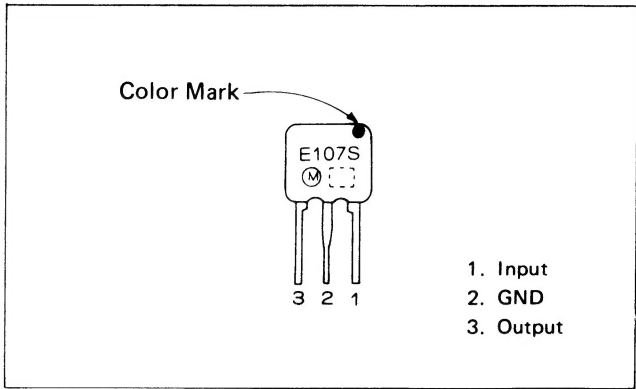


Figure 6-1

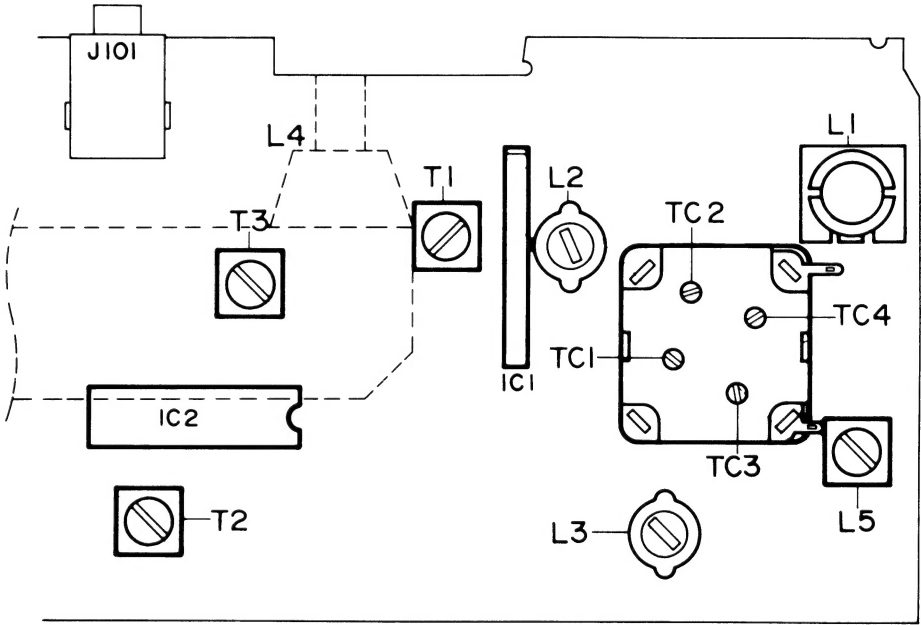


Figure 6-2 ALIGNMENT POINT

VHIAN7223/-1 (IC2)

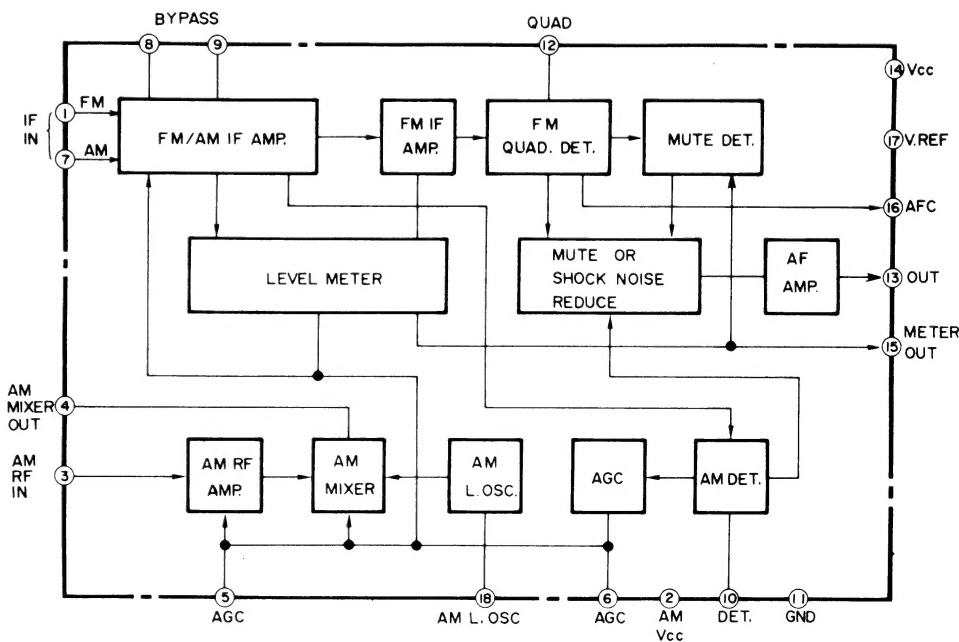


Figure 6-3 BLOCK DIAGRAM OF INTEGRATED CIRCUIT

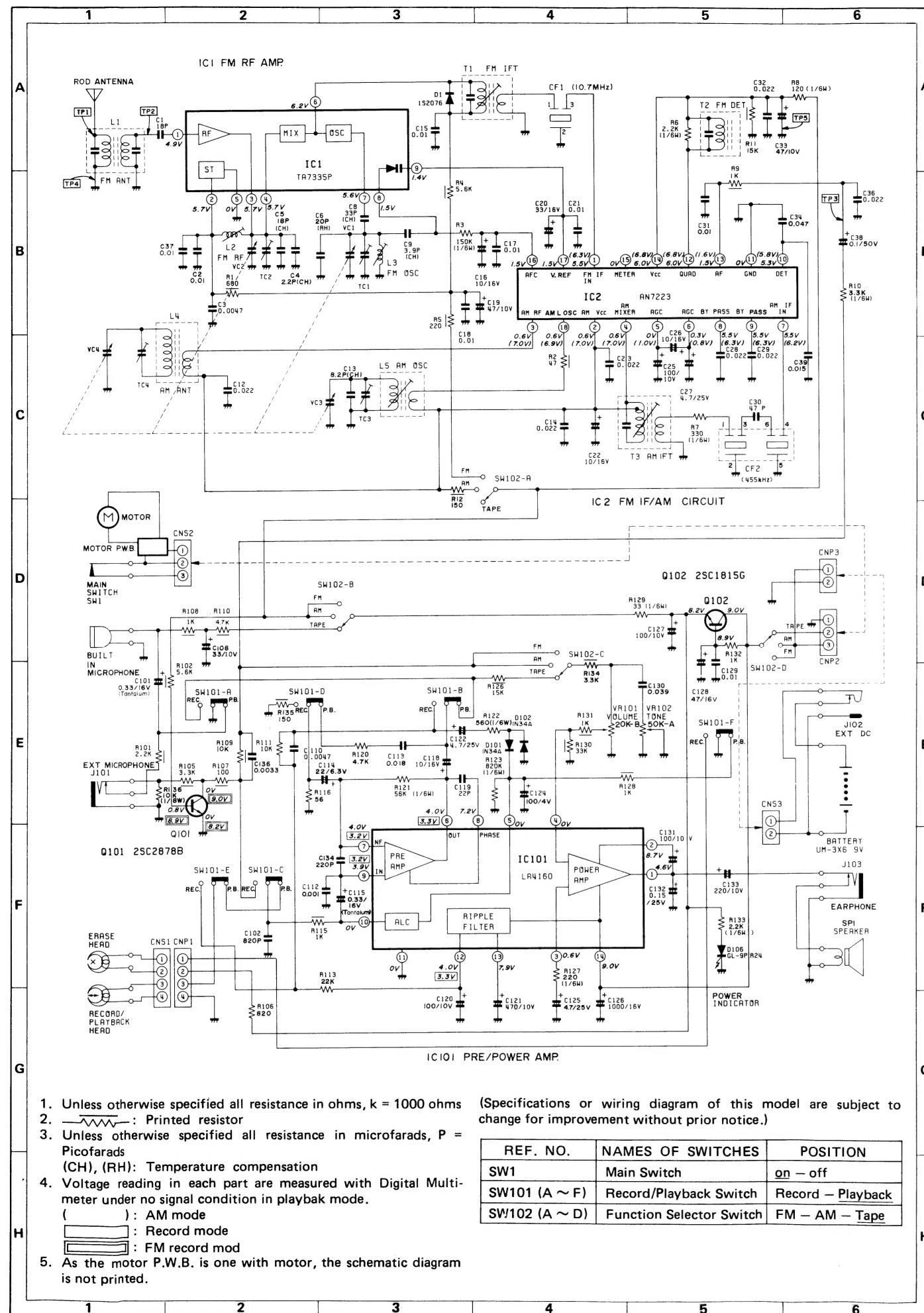


Figure 7 SCHEMATIC DIAGRAM

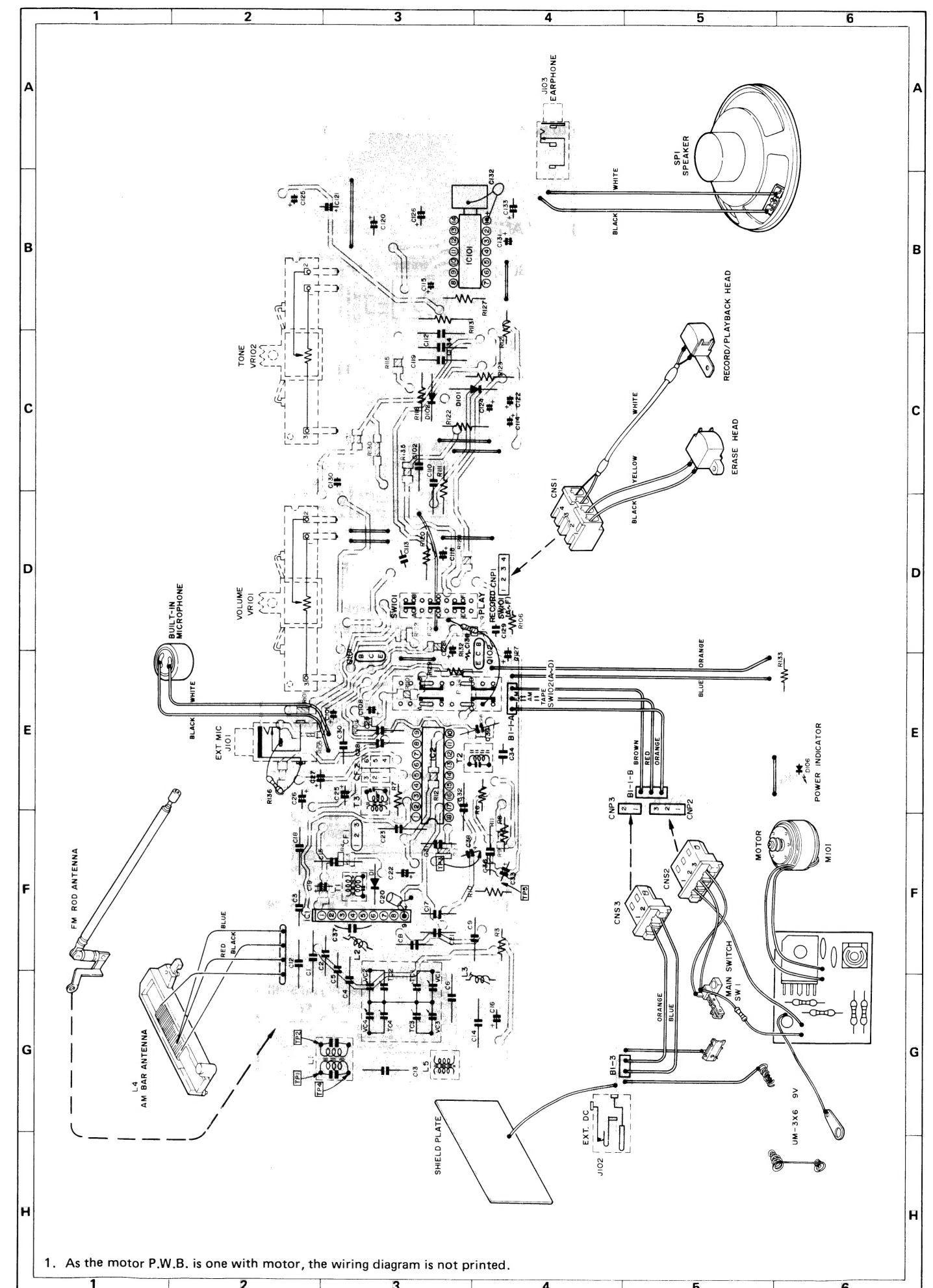


Figure 8 WIRING SIDE OF P.W.BOARD

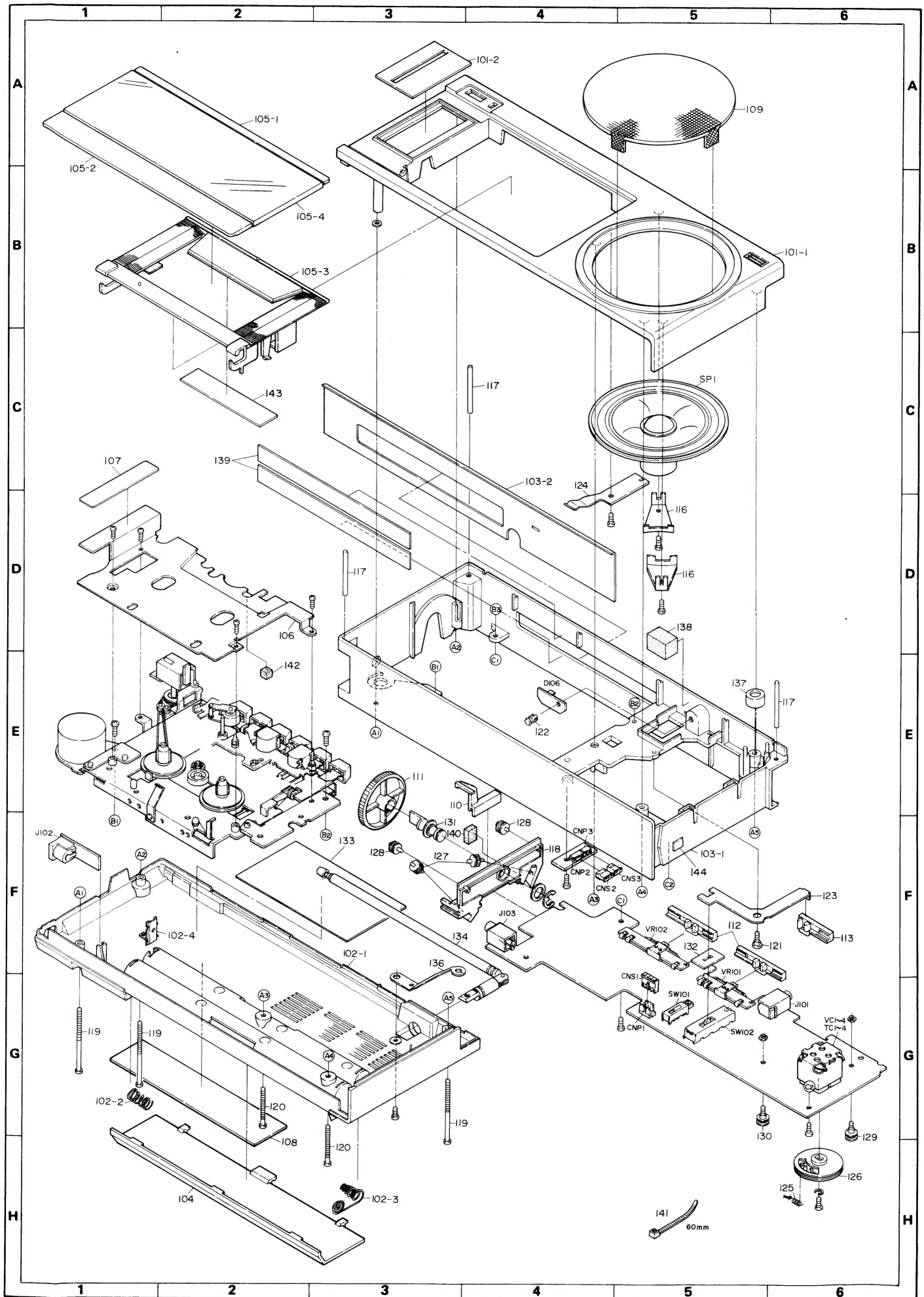


Figure 9 CABINET EXPLODED VIEW

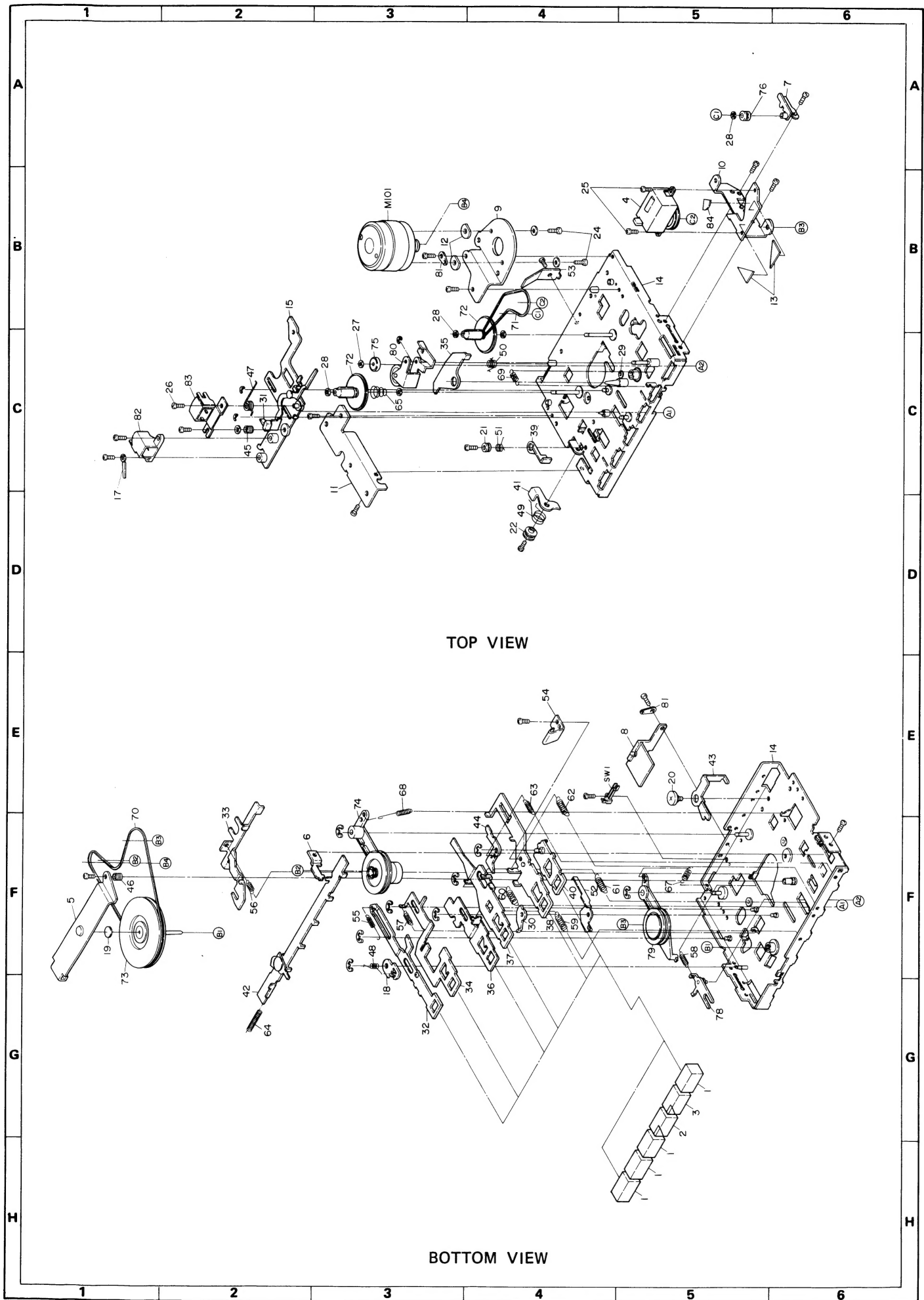


Figure 10 MECHANISM EXPLODED VIEW

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

NOTES: Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
INTEGRATED CIRCUITS				VR101	RVR-B0264AFZZ	20K ohm(B), Volume Control	AF
IC1	VHITA7335P/-1	FM RF Amp. (TA7335P)	AG	VR102	RVR-A0185AFZZ	50K ohm(A), Tone Control	
IC2	VHIAN7223//-1	FM IF/AM Circuit (AN7223)	AK	ELECTROLYTIC CAPACITORS			
IC101	VHILA4160//-1	Pre/Power Amp. (LA4160)		(Unless otherwise specified capacitors are ±20% type.)			
TRANSISTORS				C16	RC-EZA106AF1C	10MFD, 16V	AB
Q101	VS2SC2878B/-1	Muting (2SC2878B)	AC	C19	RC-EZA476AF1A	47MFD, 10V	
Q102	VS2SC1815GR-A	Ripple Filter (2SC1815G)	AB	C20	RC-EZS336AF1C	33MFD, 16V	
DIODES				C22	RC-EZA106AF1C	10MFD, 16V	
D1	VHD1S2076//-1	Overload (1S2076)	AB	C25	RC-EZA107AF1A	100MFD, 10V	
D101, 102	VHD1N34A///-1	Auto Level Control Circuit (1N34A)		C26	RC-EZA106AF1C	10MFD, 16V	
D106	RH-PX1044AFZZ	LED, Power Indicator (GL-9PR24)	AC	C27	RC-EZA475AF1E	4.7MFD, 25V	
FILTERS				C33	RC-EZV476AF1A	47MFD, 10V	
CF1	RFILF0080AFZZ	FM IF	AD	C38	VCEALV1HW104M	0.1MFD, 50V	
CF2	RFILA0085AFZZ	AM IF	AE	C101	RC-SZ1018AFZZ	0.33MFD, 16V, ±20%, Tantalum	
TRANSFORMERS				C108	RC-EZ1216AFZZ	33MFD, 10V	AD
T1	RCILIO157AFZZ	FM IF	AC	C114	RC-EZ1214AFZZ	22MFD, 6.3V	
T2	RCILIO312AFZZ	FM Detector		C115	RC-SZ1018AFZZ	0.33MFD, 16V, ±20%, Tantalum	
T3	RCILIO310AFZZ	AM IF		C118	RC-EZ1212AFZZ	10MFD, 16V	
COILS				C120	RC-EZA107AF1A	100MFD, 10V	
L1	RCILA0455AFZZ	FM Antenna	AC	C121	RC-EZ1196AFZZ	470MFD, 10V	
L2	RCILB0665AFZZ	FM RF		C122	RC-EZ1215AFZZ	4.7MFD, 25V	
L3	RCILB0628AFZZ	FM Oscillator	AC	C124	RC-EZ1213AFZZ	100MFD, 4V	AB
L4	RCILA0584AFZZ	AM Antenna	AG	C125	RC-EZS475AF1E	4.7MFD, 25V	
L5	RCILB0626AFZZ	AM Oscillator	AC	C126	RC-EZ1195AFZZ	1000MFD, 16V	AD
CONTROLS				C127	RC-EZ1205AFZZ	100MFD, 10V	
VC1, 2, VC3, 4, TC1, 2, TC3, 4	RVC-R0089AFZZ	Variable Capacitors, Tuning with Trimmers	AL	C128	RC-EZ1206AFZZ	47MFD, 16V	AB
		TC1: FM Oscillator		C131	RC-EZS107AF1A	100MFD, 10V	
		TC2: FM RF		C132	RC-AZ1001AFZZ	0.15MFD, 25V	
		TC3: AM Oscillator		C133	RC-EZA227AF1A	220MFD, 10V	
		TC4: AM Antenna		CAPACITORS			
				(Unless otherwise specified are ±5%, Ceramic type.)			
				C1	VCCSAT1HL180J	18PF, 50V	AA
				C2	VCTYDT1CY103N	0.01MFD, 16V, ±30%, Semiconductor	
				C3	VCTYDT1EX472M	0.0047MFD, 25V, ±20%, Semiconductor	
				C4	VCCCDT1HH2R2C	2.2PF (CH), 50V, ±0.25PF, Ceramic	
				C5	VCCCDT1HH180J	18PF (CH), 50V	AA
				C6	VCCRDT1HH200J	20PF (RH), 50V	
				C8	VCCCDT1HH330J	33PF (CH), 50V	
				C9	VCCCDT1HH3R9C	3.9PF (CH), 50V, ±0.25PF, Ceramic	
				C12	VCTYAT1CY223N	0.022MFD, 16V, ±30%, Semiconductor	AA
				C13	VCCCAT1HH8R2D	8.2PF (CH), 50V, ±0.5PF, Ceramic	

REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE	
C14	VCTYAT1CY223N	0.022MFD, 16V, ±30%, Semiconductor	AA	CNP2	QCNCM603CAFZZ	Plug, 3 Pin	AB	
C15	VCTYAT1EX103N	0.01MFD, 25V, ±30%, Semiconductor		CNP3	QCNCM602BAFZZ	Plug, 2 Pin	AA	
C17	VCTYDT1CY103N	0.01MFD, 16V, ±30%, Semiconductor		CNS1	QCNCW-1643AFZZ	4 Pin Socket Assembly	AC	
C18	VCTYAT1EX103N	0.01MFD, 25V, ±30%, Semiconductor		CNS2	QCNCW-1644AFZZ	3 Pin Socket Assembly		
C21	VCTYDT1CY103N	0.01MFD, 16V, ±30%, Semiconductor		BI-3/CNS3	CCNCW499BAF02	2 Pin Board in Plug/2 Pin Socket Assembly	AC	
C23, 28, C29	VCTYAT1CY223N	0.022MFD, 16V, ±30%, Semiconductor		J101	QJAKE0099AFZZ	Jack, External Microphone	AC	
				J102	QJAKC0053AFZZ	Jack, External DC Power Supply	AD	
C30	VCCSDT1HL470J	47PF, 50V		J103	QJAKE0065AFZZ	Jack, Earphone	AC	
C31	VCTYDT1CY103M	0.01MFD, 16V, ±20%, Semiconductor		SW1	QSW-F0176AFZZ	Switch, Main	AD	
C32	VCTYAT1CY223N	0.022MFD, 16V, ±30%, Semiconductor		SW101	QSW-S0365AFZZ	Switch, Record/Playback	AF	
C34	VCTYPA1EX473M	0.047MFD, 25V, ±20%, Semiconductor		(A ~ F)				
C36	VCTYAT1CY223N	0.022MFD, 16V, ±30%, Semiconductor		SW102	QSW-S0369AFZZ	Switch, Function Selector	AF	
C37	VCTYDT1CY103N	0.01MFD, 16V, ±30%, Semiconductor		(A ~ D)				
C39	VCTYAT1EX153N	0.015MFD, 25V, ±30%, Semiconductor		M101	RMOTV0123AF01	Motor, with Pulley	AQ	
C102	VCKYAT1HB821K	820PF, 50V, ±10%, Ceramic		SP1	VSP0080P-686A	Speaker		
C110	VCTYAT1HV472K	0.0047MFD, 50V, ±10%, Semiconductor		MECHANICAL PARTS				
C112	VCKYAT1HB102K	0.001MFD, 50V, ±10%, Semiconductor		1	JKNBP0204AFSA	Button, Rewind/Fast Forward/Pause/Stop-Eject (QT-60XR)	AC	
C113	VCTYPU1EX183K	0.018MFD, 25V, ±10%, Semiconductor		1	JKNBP0204AFSB	Button, Rewind/Fast Forward/Pause/Stop-Eject (QT-60XB)	AB	
C119	VCCSAT1HL220J	22PF, 50V		2	JKNBP0205AFSA	Button, Playback (QT-60XR)	AC	
C129	VCTYPU1EX103M	0.01MFD, 25V, ±20%, Semiconductor		2	JKNBP0205AFSB	Button, Playback (QT-60XB)		
C130	VCTYPA1EX393K	0.039MFD, 25V, ±10%, Semiconductor		3	JKNBP0206AFSA	Button, Record (QT-60XR)	AK	
C134	VCKYAT1HB221K	220PF, 50V, ±10%, Ceramic		3	JKNBP0206AFSB	Button, Record (QT-60XB)		
C136	VCTYAT1HV332K	0.0033MFD, 50V, ±10%, Semiconductor		4	KCOUB0134AFZZ	Tape Counter	AK	
RESISTORS (Unless otherwise specified resistors are ±5%, Carbon type.)				5	LANGF0743AFZZ	Bracket, Flywheel Retaining	AK	
				6	LANGF0744AFZZ	Bracket, Button Block Lock Lever Retaining		
R3	VRD-ST2CD154J	150K ohm, 1/6W	7	LANGK0319AFZZ	Bracket, Pulley	AK		
R6	VRD-ST2CD222J	2.2K ohm, 1/6W	8	LANGQ0872AFZZ	Bracket, P.W.Board Retaining			
R7	VRD-ST2CD331J	330 ohm, 1/6W	9	LANGT1132AFFW	Bracket, Motor Retaining	AK		
R8	VRD-ST2CD121J	120 ohm, 1/6W	10	LANGT1133AFFW	Bracket, Tape Counter			
R10	VRD-ST2CD332J	3.3K ohm, 1/6W	11	LANGT1134AFFW	Bracket, Mechanism Block Retaining	AK		
R106	VRD-SU2EE821J	820 ohm, 1/4W	12	LBSHZ0082AFZZ	Cushion, Motor			
R111	VRD-ST2EE103J	10K ohm, 1/4W	13	LBSHZ0083AFZZ	Spacer, Tape Counter	AK		
R113	VRD-ST2EE223J	22K ohm, 1/4W	14	LCHSM0421AFZZ	Main Chassis			
R116	VRD-ST2EE560J	56 ohm, 1/4W	15	LCHSS0182AFZZ	Sub-chassis	AK		
R120	VRD-ST2EE472J	4.7K ohm, 1/4W	17	LHLDW3072AFZZ	Wire Holder			
R121	VRD-ST2CD563J	56K ohm, 1/6W	18	LPLTM0127AFZZ	Lock Plate, Pause	AK		
R122	VRD-ST2CD561J	560 ohm, 1/6W	19	LPLTP0064AFZZ	Pad, Thrust			
R123	VRD-ST2CD824J	820K ohm, 1/6W	20	LX-BZ0447AFDD	Screw, Erase Prevention Lever Stop	AK		
R127	VRD-ST2CD221J	220 ohm, 1/6W	21	LSLVM0143AFFW	Spacer, Record Prevention Lever Spring Stop			
R129	VRD-ST2CD330J	33 ohm, 1/6W	22	LSLVM0144AFFW	Spacer, Cassette up Lever Spring Stop	AK		
R132	VRD-SU2EE102J	1K ohm, 1/4W	24	LX-BZ0436AFZZ	Screw, Motor Retaining			
R133	VRD-ST2CD222J	2.2K ohm, 1/6W	25	LX-BZ0437AFZZ	Screw, Tape Counter Retaining	AK		
R136	VRD-SU2BB103J	10K ohm, 1/8W	26	LX-BZ0438AFZZ	Screw, Record/Playback Head Retaining			
OTHER CIRCUITRY PARTS				27	LX-WZ1064AFZZ	Washer, 1.2mm Dia. x 3.2mm Dia. x 0.25 mm	AK	
				28	LX-WZ1065AFZZ	Washer, 1.6mm Dia. x 3.2mm Dia. x 0.25 mm		
BI-1-A, B	QCNCW-1672AFZZ	3 Pin Board in Plug x 2 Assembly	29	LX-WZ1066AFZZ	Washer, Oil Cut	AK		
CNP1	QCNCM400DAFZZ	Plug, 4 Pin	30	MLEVF1410AFFW	Lever, Review			
				31	MLEVF1406AFFW	Chip, Sensor	AK	
				32	MLEVF1407AFZZ	Lever, Pause		
				33	MLEVF1408AFFW	Lever, Main Switch	AK	
				34	MLEVF1409AFFW	Lever, Fast Forward		
				35	MLEVF1405AFFW	Lever, Cue	AK	

REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
36	MLEVF1411AFFW	Lever, Rewind		102-2	MSPRC0320AFFW	Battery Spring, Negative Side	AA
37	MLEVF1412AFFW	Lever, Playback		102-3	MSPRC0321AFFW	Battery Spring, Positive Side and Negative Side	AB
38	MLEVF1413AFFW	Lever, Record		102-4	QTANB9120AFFW	Battery Terminal	AA
39	MLEVF1414AFFW	Lever, Record Prevention		102	CCABB1691AF03	Rear Cabinet Assembly (QT-60XB)	AT
40	MLEVF1415AFZZ	Lever, Stop-Eject		102-1	GCABB1691AFSB	Rear Cabinet (QT-60XB)	AM
41	MLEVF1416AFFW	Lever, Cassette up		102-2	MSPRC0320AFFW	Battery Spring, Negative Side	AA
42	MLEVF1417AFZZ	Lever, Lock		102-3	MSPRC0321AFFW	Battery Spring, Positive Side and Negative Side	AB
43	MLEVF1418AFFW	Lever, Erase Prevention		102-4	QTANB9120AFFW	Battery Terminal	AA
44	MLEVF1419AFFW	Lever, Kick		103	GCAB-1152AFSA	Operation Cabinet Assembly (QT-60XR)	AR
45	MSPRC0336AFFJ	Spring, Head Azimuth		103-1	GCABC1691AFSA	Operation Cabinet (QT-60XR)	AN
46	MSPRC0337AFFJ	Spring, Thrust		103-2	HINDM1552AFSA	Decoration Plate (QT-60XR)	AH
47	MSPRD0453AFFJ	Spring, Pinch Roller		103	GCAB-1152AFSB	Operation Cabinet Assembly (QT-60XB)	AR
48	MSPRD0454AFFJ	Spring, Pause Lock Plate		103-1	GCABC1691AFSB	Operation Cabinet (QT-60XB)	AN
49	MSPRD0455AFFJ	Spring, Cassette up Lever		103-2	HINDM1552AFSB	Decoration Plate (QT-60BX)	AH
50	MSPRD0456AFFJ	Spring, Erase Prevention Lever		104	GFTAB1135AFSA	Lid, Battery Compartment (QT-60XR)	AE
51	MSPRD0457AFFJ	Spring, Record Prevention		104	GFTAB1135AFSB	Lid, Battery Compartment (QT-60XB)	AE
52	MSPRP0331AFFJ	Plate Spring, Rewind		105	GFTAC1249AFSA	Cassette Holder Assembly (QT-60XR)	AP
53	MSPRP0332AFFJ	Plate Spring, Cassette Retaining		105-1	GCOVH1191AFSA	Decoration Plate, Cassette Holder (QT-60XR)	AC
54	MSPRP0333AFFJ	Plate Spring, Record/Playback Selector Switch		105-2	GCOVH1193AFSA	Decoration Plate, Cassette Holder (QT-60XR)	AF
55	MSPRT0934AFFJ	Spring, Pause Lever		105-3	GFTAC1222AFSA	Cassette Holder	AE
56	MSPRT0935AFFJ	Spring, Main Switch Lever		105-4	GFTAC1223AFSA	Transparent Plate, Cassette Holder	AF
57	MSPRT0936AFFJ	Spring, Fast Forward		105	GFTAC1249AFSB	Cassette Holder Assembly (QT-60XB)	AP
58	MSPRT0937AFFJ	Spring, Fast Forward Idler Arm		105-1	GCOVH1191AFSB	Decoration Plate, Cassette Holder (QT-60XB)	AC
59	MSPRT0938AFFJ	Spring, Rewind Lever		105-2	GCOVH1193AFSB	Decoration Plate, Cassette Holder (QT-60XB)	AF
60	MSPRT0940AFFJ	Spring, Over Stroke		105-3	GFTAC1222AFSA	Cassette Holder	AE
61	MSPRT0939AFFJ	Spring, Playback Lever		105-4	GFTAC1223AFSA	Transparent Plate, Cassette Holder	AF
62	MSPRT0941AFFJ	Spring, Record Lever		106	HDECA0518AFSA	Decoration Plate, Mechanism	AG
63	MSPRT0944AFFJ	Spring, Kick Lever		107	HDECP0078AFSA	Decoration Sheet	
64	MSPRT0945AFFJ	Spring, Lock Lever		108	HINDP0547AFSA	Label, Specifications (QT-60XR)	AB
65	MSPRT0946AFFJ	Spring, Back Tension		108	HINDP0548AFSA	Label, Specifications (QT-60XB)	AB
67	MSPRT0947AFFJ	Spring, Clutch		109	HPNC-0165AFSA	Punching Metal, Speaker (QT-60XR)	AG
68	MSPRT0948AFFJ	Spring, Fast Forward/Rewind Idler Arm		109	HPNC-0165AFSB	Punching Metal, Speaker (QT-60XB)	AG
69	MSPRT0949AFFJ	Spring, Release Lever		110	HSSND0309AFSA	Dial Pointer	AC
70	NBLTK0236AFZZ	Belt, Flywheel Drive		111	JKNBK0284AFSA	Knob, Tuning	
71	NBLTK0237AFZZ	Belt, Tape Counter Drive	AC	112	JKNBP0199AFSA	Knob, Volume/Tone Control (QT-60XR)	AD
72	NDAIR0169AFZZ	Turntable		112	JKNBP0199AFSB	Knob, Volume/Tone Control (QT-60XB)	
73	NFLYC0107AFZZ	Flywheel		113	JKNBP0200AFSA	Knob, Function Selector (QT-60XR)	AD
74	NIDR-0081AFZZ	Fast Forward/Rewind Idler Arm		113	JKNBP0200AFSB	Knob, Function Selector (QT-60XB)	
75	NIDR-0082AFZZ	Fast Forward Idler		116	LANGS0064AFFW	Bracket, Speaker Retaining	AB
76	NPLYR0088AFZZ	Pulley		117	LANGZ0101AFZZ	Bracket, Shoulder Belt Hook	AB
78	NROLW0020AFZZ	Fast Forward Idler Arm		118	LHLDF1271AFZZ	Pointer Rod	AD
79	NROLW0021AFZZ	Clutch		119	LX-CZ0010AF00	Screw, Cabinet Retaining (QT-60XR)	AA
80	NROLY0050AFZZ	Pinch Roller Assembly		119	LX-CZ0010AFZZ	Screw, Cabinet Retaining (QT-60XB)	AA
81	QHWS-3001AGFN	Lug	AA				
82	RHEDA0102AFZZ	Erase Head	AE				
83	RHEDG0062AFZZ	Record/Playback Head	AH				
84	LX-WZ1059AFZZ	Washer, Tape Counter Bracket	AA				
MISCELLANEOUS							
101	CCABA1691AF05	Front Cabinet Assembly (QT-60XR)					
101-1	GCABA1691AFSA	Front Cabint (QT-60XR)	AM				
101-2	HDALM0394AFSA	Plate, Dial	AC				
101	CCABA1691AF07	Front Cabinet Assembly (QT-60XB)					
101-1	GCABA1691AFSB	Front Cabinet (QT-60XB)	AN				
101-2	HDALM0394AFSA	Plate, Dial	AC				
102	CCABB1691AF01	Rear Cabinet Assembly (QT-60XR)	AR				
102-1	GCABB1691AFSA	Rear Cabinet (QT-60XR)	AM				

REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
120	LX-CZ0017AF00	Screw, Cabinet Retaining (QT-60XR)	AA	140	PCUSG0192AF00	Rubber, Pointer Rod	AA
120	LX-CZ0017AFZZ	Screw, Cabinet Retaining (QT-60XB)		141	LHLDW1075AFZZ	Nylon Band, 60mm	
121	LX-JZ0006AFFD	Screw, Function Selector Switch Lever		142	PCUSS0196AF00	Cushion, Mechanism Decoration Plate	
122	LX-LZ0051AF00	Rivet	AB	143	PFLT-0127AF00	Felt, Cassette Holder	AA
123	MLEVF1386AFZZ	Lever, Function Selector Switch		144	PCUSG0141AF00	Felt, Operation Cabinet	
124	MSPRP0322AFFW	Plate Spring, Cassette Holder			QPLGA0251AFZZ	Plug, AC Adaptor	
125	MSPRT0952AFFJ	Spring, Dial Stringing	AC		RADPA8080AFZZ	AC Adaptor	AK
126	NDRM-0179AFZZ	Drum, Dial Stringing			RTPEK0101AFZZ	Cassette Tape	
127	NPLYB0050AFZZ	Pulley, Dial Stringing			SPAKA0964AFZZ	Packing Add, Left Side	AC
128	NPLYB0051AFZZ	Pulley, Dial Stringing	AA		SPAKA0965AFZZ	Packing Add, Right Side	
129	NPLYB0070AFZZ	Pulley, Dial Stringing			SPAKC2154AFZZ	Packing Case (QT-60XR)	AG
130	NPLYB0071AFZZ	Pulley, Dial Stringing			SPAKC2155AFZZ	Packing Case (QT-60XB)	
131	NSFTT0201AFFW	Shaft, Tuning	AD		SSAKA0021AFZZ	Polyethylene Bag, Operation Manual	AA
132	PCOVF1187AFZZ	Cover, Function Selector Switch	AA		SPAKP0306AFZZ	Polyethylene Bag, Set	AA
133	PSLDM7150AFZZ	Plate, Shield	AC		TGANE1121AFZZ	Warranty Card, PX	AC
134	QANTR0129AFSA	Rod Antenna (QT-60XR)	AM		TINSZ0433AFZZ	Operation Manual	AG
134	QANTR0129AFSB	Rod Antenna (QT-60XB)			TLABZ0331AFZZ	Characterization Label	AB
136	QTANZ0169AFFW	Bracket, Rod Antenna	AB		TLABZ0341AFZZ	Label, Battery	
137	RMICC0083AFZZ	Built-in Microphone	AF		TMAPC0946AFZZ	Schematic Diagram	
138	PCUSS0193AFZZ	Cushion, Operation Cabinet (QT-60XR)	AA		UBATU0001AGZZ	Battery	AB
139	PFLT-0527AF00	Felt, Operation Cabinet (QT-60XR)	AB		UBNDS0052AFSA	Shoulder Belt (QT-60XR)	AC
139	PFLT-0527AF09	Felt, Operation Cabinet (QT-60XB)			HDECQ0169AFSA	Clip	
					UBNDS0052AFSB	Shoulder Belt (QT-60XB)	
					HDECQ0169AFSB	Clip	AC